

Appendix 3: Standardized Milestones/Deliverables

Project Type	Milestones	Deliverables
Agricultural Pollution Prevention – Project Identification	Project initiated; site locations and boundaries identified	Locator map(s) of identified problem area(s) and narrative on how areas were identified
	Water quality improvement needs and objectives identified	Project summaries with water quality improvement needs and objectives identified
	Prioritization criteria developed; project prioritization completed	List of criteria used for prioritization (must include level of landowner commitment); prioritized project list
	Assessment complete	Final Assessment Report (includes synthesis from prior completed project deliverables); batch import file ¹ and locator maps ² of projects identified
	Project complete	Final Performance Report ³ ; press release
Agricultural Pollution Prevention – Engineering Design	Project initiated; ownership of site(s) identified	Locator map with site photo(s); summary of landowner contact
	Identified site/design considerations and permitting needs	Project summaries that identify site/design considerations, permitting needs, and water quality improvement objectives and goals
	Determination of operation and maintenance (O&M) responsible party	Documentation of O&M responsible party once project is implemented
	100% design complete ⁴	Final Design Report (includes synthesis of prior completed project deliverables, 100% designs ⁴ , written landowner commitment to implement project, and final cost-estimate)
	Project complete	Final Performance Report ³ ; press release
Agricultural Pollution Prevention – Implementation	Project initiated; RFP issued (if applicable)	Copy of RFP (if applicable); photo(s) of site(s) pre-implementation
	Contractor selected (if applicable)	Signed contract; statement of reasoning for contractor selection (if applicable)
	Required permits secured (if applicable)	Permit documentation (if applicable)
	Implementation update(s)	Interim report(s) (includes summary of work to date, percent progress, and construction photos)
	Agricultural best management practice(s) (BMPs) implemented	
	O&M plan created and signed	Signed 10-year minimum O&M plan
	Project complete	Final Performance Report ³ ; press release; post-implementation photo(s)
Agriculture - Equipment	Project initiated; purchase of equipment	Invoice for equipment purchase
	Farmer cooperative agreement developed (if applicable); O&M plan created and signed	Signed cooperative agreement (if applicable); signed 10-year minimum O&M plan
	Project complete	Final Performance Report ³ including annual equipment reporting (required for 10 years); press release; photo(s) showing equipment in use

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Project Type	Milestones	Deliverables
Forestry – Project Identification	Project initiated; site locations and boundaries identified	Locator map(s) of identified problem area(s) and narrative on how areas were identified
	Water quality improvement needs and objectives identified	Project summaries with water quality improvement needs and objectives identified
	Prioritization criteria developed; project prioritization completed	List of criteria used for prioritization (must include level of landowner commitment); prioritized project list
	Assessment complete	Final Assessment Report (includes synthesis from prior completed project deliverables); batch import file ¹ and locator maps ² of projects identified
	Project complete	Final Performance Report ³ ; press release
Forestry – Engineering Design	Project initiated, ownership of site(s) identified	Locator map with site photo(s); summary of landowner contact
	Identified site/design considerations and permitting needs	Project summaries that identify site/design considerations, permitting needs, and water quality improvement needs and objectives
	Determination of O&M responsible party	Documentation of O&M responsible party once project is implemented
	100% Design complete ⁴	Final Design Report (includes synthesis of prior completed project deliverables, 100% designs ⁴ , written landowner commitment to implement project, and final cost-estimate)
	Project complete	Final Performance Report ³ ; press release
Forestry - Implementation	Project initiated; RFP issued and contractor selected (if applicable)	Copy of RFP and signed contract; statement of reasoning for contractor selection (if applicable); photo(s) of site(s) pre-implementation
	Implementation update(s)	Interim report(s) (includes summary of work to date, percent progress, and construction photos)
	Forestry acceptable management practice(s) implemented	
	Project complete	Final Performance Report ³ ; press release; post-implementation photo(s)
Forestry – Equipment	Project initiated; purchase of equipment	Invoice for equipment purchase
	Forester cooperative agreement developed (if applicable); O&M plan created and signed	Signed cooperative agreement (if applicable); signed 10-year minimum O&M plan
	Project complete	Final Performance Report ³ including annual equipment reporting (required for 10 years); press release; photo(s) showing equipment in use

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Project Type	Milestones	Deliverables
Lake Wise Water Planning	Project initiated; kickoff meeting with Lake Association	Meeting minutes including date and number in attendance
	Site locations and boundaries for evaluation identified	Locator map of identified problem area(s) and narrative on how areas were identified; summary of landowner involvement
	Lake Wise Assessments completed	Summary of Lake Wise results and awards given with restoration/water quality improvement needs and objectives identified
	Lake Wise BMP project prioritization	Priority scoring matrix of BMPs for potential design (must include level of landowner commitment); prioritized project list
	Lake Wise Master Plan complete	Lake Wise Master Plan report (includes synthesis from prior completed project deliverables); batch import file ¹ and locator maps ² of projects identified
	Project complete	Final Performance Report ³ ; press release
Lake Shoreland - Preliminary Engineering Design	Project initiated; identified site/design considerations and permitting needs	Locator map with site photo(s); project summaries that identify site/design considerations, permitting needs, and restoration/water quality improvement objectives and goals
	30% design complete ⁴	Preliminary Design Final Report (includes synthesis from prior completed project deliverables, 30% designs ⁴ , written landowner commitment to next project step, and cost-estimate)
	Project complete	Final Performance Report ³ ; press release
Lake Shoreland - Final Engineering Design	Project initiated; determination of required permits	Documentation of required permits for project implementation, indicating potential challenges/conflicts for obtaining permit (if applicable) and project locator map
	Determination of O&M responsible party	Documentation of O&M responsible party once project is implemented
	100% design complete ⁴	Final Design Report (includes synthesis of prior completed project deliverables, 100% designs ⁴ , written landowner commitment to implement project, and final cost-estimate)
	Project complete	Final Performance Report ³ ; press release
Lake Shoreland Buffers – Implementation	Project initiated; RFP issued (if applicable)	Copy of RFP (if applicable); photo(s) of site(s) pre-implementation
	Contractor selected (if applicable)	Signed contract; statement of reasoning for contractor selection (if applicable)
	Required permits secured (if applicable)	Permit documentation (if applicable)
	Implementation update(s)	Interim report(s) (includes summary of work to date, percent progress, and construction photos)
	Buffer restoration planting completed	
	O&M plan created and signed	Signed 10-year minimum O&M plan (including timing and completion of plant protection removal)
	Project complete	Final Performance Report ³ including buffer-BMP reporting; press release; post-implementation photo(s)

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Project Type	Milestones	Deliverables
River Project – Project Identification	Project initiated; site locations and boundaries identified	Locator map of identified problem area(s) and narrative on how areas were identified
	Restoration/water quality improvement needs and objectives identified	Project summaries with restoration/water quality improvement needs and objectives identified
	Prioritization criteria developed; project prioritization completed	List of criteria used for prioritization (must include level of landowner commitment); prioritized project list
	Assessment complete	Final Assessment Report (includes synthesis from prior completed project deliverables); batch import file ¹ and locator maps ² of projects identified
	Project complete	Final Performance Report ³ ; press release
Stream Geomorphic Assessment (SGA) Phase 1	Project initiated; baseline data created including stream reach breaks, meander center lines, and valley walls; Stream Geomorphic Assessment Tool (SGAT) run	SGAT project on CD
	Data entered to the Department of Environmental Conservation (DEC) SGA data management system	Verification of data entry to DEC SGA data management system
	Quality assurance check complete	Quality assurance documentation
	Phase 1 SGA complete	Final SGA Phase 1 Report (includes synthesis from prior completed project deliverables)
	Project complete	Final Performance Report ³ ; press release
Stream Geomorphic Assessment (SGA) Phase 2	Project initiated; reaches selected from SGA Phase 1; landowner permission obtained	Report on reach prioritization method and landowner contact
	Field work completed; data entered to DEC SGA data management system	Verification that data entry to DEC SGA data management system
	Quality assurance check complete	Quality assurance documentation
	Phase 2 SGA complete	Final SGA Phase 2 Report (includes synthesis from prior completed project deliverables); batch import file ¹ and locator maps ² of projects identified
	Project complete	Final Performance Report ³ ; press release
River Corridor Plan	Project initiated; steering committee established	Minutes and list of attendees from steering committee meeting
	Project identification meeting held	Table of projects identified following Rivers Program-provided template
	Corridor Plan drafted; 5 project packets developed	Draft corridor plan including minimum of five project packets with cost-estimates and landowner commitment to next project steps
	River Corridor Plan complete	River Corridor Plan (includes synthesis from prior completed project deliverables); batch import file ¹ and locator maps ² of projects identified
	Project complete	Final Performance Report ³ ; press release

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Dam Removal - Preliminary Engineering Design	Project initiated; feasibility/alternatives analysis completed; identified permitting needs	Feasibility/alternatives analysis report, including permitting needs
	Design concepts completed	Design concepts report including updated conceptual site plan, design criteria for all aspects of the design, and construction cost-estimates
	Topographic and boundary survey; geotechnical report	Report of the topographic and boundary survey; geotechnical report
	30% design complete ⁴	Preliminary Design Final Report (includes synthesis of prior completed project deliverables, 30% design ⁴ , written landowner commitment to next project step, and cost-estimate)
	Project complete	Final Performance Report ³ ; press release
Dam Removal - Final Engineering Design	Project initiated; determination of required permits	Documentation of required permits for project implementation, indicating potential challenges/conflicts for obtaining permit (if applicable) and project locator map
	Determination of O&M responsible party	Documentation of O&M responsible party once project is implemented
	100% design completed ⁴	Final Design Report (includes synthesis of prior completed project deliverables, 100% designs ⁴ , written landowner commitment to implement project, and final cost-estimate)
	Project complete	Final Performance Report ³ ; press release
Dam Removal - Implementation	Project initiated; RFP issued (if applicable)	Copy of RFP (if applicable); photo of site pre-implementation
	Contractor selected	Signed contract; statement of reasoning for contractor selection
	Required permits secured	Permit documentation
	Implementation update(s)	Interim report(s) (includes summary of work to date, percent progress, and construction photos)
	Dam removed; restoration work completed	
	Project complete	Final Performance Report ³ ; press release; post-implementation photo
Floodplain/Stream Restoration - Preliminary Engineering Design	Project initiated; ownership of site(s) identified	Locator map with site photo(s); summary of landowner contact
	Identified site/design considerations and permitting needs	Project summaries that identify site/design considerations, permitting needs, and restoration/water quality improvement objectives and needs (includes field survey completed with GIS-based map and cross-section locations)
	30% design complete ⁴	Preliminary Design Final Report (includes alternatives analysis summary, synthesis of prior completed project deliverables, 30% designs ⁴ , written landowner commitment to next project step, and cost-estimates)
	Project complete	Final Performance Report ³ ; press release

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Floodplain/Stream Restoration - Final Engineering Design	Project initiated; determination of required permits	Documentation of required permits for project implementation, indicating potential challenges/conflicts for obtaining permit (if applicable) and project locator map
	Determination of O&M responsible party	Documentation of O&M responsible party once project is implemented
	100% design complete ⁴	Final Design Report (includes synthesis of prior completed project deliverables, 100% designs ⁴ , written landowner commitment to implement project, and final cost-estimate)
	Project complete	Final Performance Report ³ ; press release
Floodplain/Stream Restoration - Implementation	Project initiated; RFP issued (if applicable)	Copy of RFP (if applicable); photo(s) of site(s) pre-implementation
	Contractor selected (if applicable)	Signed contract; statement of reasoning for contractor selection (if applicable)
	Required permits secured (if applicable)	Permit documentation (if applicable)
	Implementation update(s)	Interim report(s) (includes summary of work to date, percent progress, and construction photos)
	Floodplain/stream restoration project(s) implemented	
	O&M plan created and signed	Signed 10-year minimum O&M plan
	Project complete	Final Performance Report ³ ; press release; post-implementation photo(s)
River Corridor Easement – Design	Project initiated; ownership of site(s) identified	Locator map with site photo(s); summary of landowner contact
	Site plan; conservation documents drafted	GIS site plan; copy of draft conservation documents
	Property survey completed	Property survey
	Landowner negotiations completed	Report of landowner negotiations, including commitment to implementation and cost-estimate
	Final draft agreement for easement completed	Final draft agreement for easement
	Project complete	Final Performance Report ³ ; press release
River Corridor Easement - Implementation	Project initiated; purchase and sales agreement signed	Signed purchase and sales agreement
	Property title search and insurance completed	Title report
	Easement closed and long-term monitoring plan developed	Copy of all legally filed documents signed by the grantee and landowner; MOU for stewarding river corridor easements between grantee and DEC; copy of easement with DEC as a third party beneficiary
	Project complete	Final Performance Report ³ ; press release; post-implementation photo(s)

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River Corridor - Buffer Planting	Project initiated; site constraints identified	Locator map(s) with pre-implementation site photo(s); site descriptions with constraints listed
	Developed planting plan; secured landowner agreements with signed O&M plans	Planting plan (including species type, number, and estimated cost) in accordance with SGA or River Corridor Planning recommendations (if available); signed landowner agreement(s) with minimum 10-year O&M plan(s)
	Implementation updates	Interim report(s) (includes summary of work to date, percent progress, and construction photos)
	Buffer restoration planting completed	
	Project completed	Final Performance Report ³ including buffer-BMP reporting; press release; post-implementation photo(s)

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Project Type	Milestones	Deliverables
Road Erosion Control Inventory	Project initiated; site locations and boundaries identified	Locator map of identified problem area(s) and narrative on how areas were identified
	Water quality improvement needs and objectives identified	Project summaries with water quality improvement needs and objectives identified
	Prioritization criteria developed; project prioritization completed	List of criteria used for prioritization (must include level of landowner commitment); prioritized project list
	Road Erosion Control Inventory complete	Final Road Erosion Inventory (includes synthesis from prior completed project deliverables); batch import file ¹ and locator maps ² of projects identified
	Project complete	Final Performance Report ³ ; press release
Road Project - Project Identification	Project initiated; site locations and boundaries identified	Locator map of identified problem area(s) and narrative on how areas were identified
	Restoration needs and objectives identified	Project summaries with restoration needs and objectives identified
	Prioritization criteria developed; project prioritization completed	List of criteria used for prioritization (must include level of landowner commitment); prioritized project list
	Final assessment complete	Final Assessment Report (includes synthesis from prior completed project deliverables); batch import file ¹ and locator maps ² of projects identified
	Project complete	Final Performance Report ³ ; press release
Road Project - Preliminary Engineering Design	Project initiated; ownership of site(s) identified	Locator map with site photo(s); summary of landowner contact
	Identified site/design considerations and permitting needs	Project summaries that identify site/design considerations, permitting needs, and water quality improvement objectives and goals
	30% design complete ⁴	Preliminary Design Final Report (includes synthesis of prior completed project deliverables, 30% designs ⁴ , written landowner commitment to next project step, and cost-estimate)
	Project complete	Final Performance Report ³ ; press release
Road Project - Final Engineering Design	Project initiated; determination of required permits	Documentation of required permits for project implementation, indicating potential challenges/conflicts for obtaining permit (if applicable) and project locator map
	Determination of O&M responsible party	Documentation of O&M responsible party once project is implemented
	100% design complete ⁴	Final Design Report (includes synthesis of prior completed project deliverables, 100% designs ⁴ , written landowner commitment to implement project, and final cost-estimate)
	Project complete	Final Performance Report ³ ; press release

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Road Project - Implementation	Project initiated; RFP Issued (if applicable)	Copy of RFP (if applicable); photo(s) of site(s) pre-implementation
	Contractor selected (if applicable)	Signed contract; statement of reasoning for contractor selection (if applicable)
	Required permits secured (if applicable)	Permit documentation (if applicable)
	Implementation update(s)	Interim report(s) (includes summary of work to date, percent progress, and construction photos)
	BMP(s) implemented	
	O&M plan created and signed	Signed 10-year minimum O&M plan
	Project complete	Final Performance Report ³ including BMP reporting; press release; post-implementation photo(s)
Stormwater/ Roads – Equipment	Project initiated; purchase of equipment	Invoice for equipment purchase
	Cooperative agreement developed (if applicable); O&M plan created and signed	Signed municipal cooperative agreement (if applicable); signed 10-year minimum O&M plan
	Project complete	Final Performance Report ³ including annual equipment reporting (required for 10 years); press release; photo(s) showing equipment in use

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Stormwater – IDDE	Project initiated; RFP issued and contractor selected (if applicable)	Copy of RFP and signed contract (if applicable); statement of reasoning for contractor selection
	Data acquisition and review initiated	Initial survey and advanced investigation; itemized cost list with documentation on methods used
	Data acquisition and review completed	Interim table of outfall monitoring results
	IDDE assessment completed	Final report summarizing problems found, status of problems found, recommended actions, data tables, problem area maps, and cost-estimates
	Project complete	Final Performance Report ³ ; press release
Stormwater Master Plan	Project initiated; RFP issued and contractor selected (if applicable)	Copy of RFP and signed contract; statement of reasoning for contractor selection (if applicable)
	Data acquisition and review completed	Locator map(s); documentation of data gaps; data library
	Existing condition water quality improvement needs and objectives identified	Documentation of problem areas with locator maps and site photo(s)
	Prioritization criteria developed; project prioritization completed	List of criteria used for prioritization; prioritized project list
	Meeting(s) with stakeholders held	Summary of meeting(s)
	Restoration plans developed for a subset of prioritized projects	Restoration plans of prioritized projects including preliminary (30%) engineering designs and cost estimates
	Stormwater Master Plan completed	Storm Water Master Plan (includes synthesis from prior completed project deliverables); batch import file ¹ and locator maps ² of projects identified
	Project complete	Final Performance Report ³ ; press release
Stormwater - Preliminary Engineering Design	Project initiated; ownership of site(s) identified	Locator map with site photo(s); summary of landowner contact
	Identified site/design considerations and permitting needs	Project summaries that identify site/design considerations, permitting needs, and water quality improvement objectives and goals
	30% design complete ⁴	Preliminary Design Final Report (includes synthesis of prior completed project deliverables, 30% designs ⁴ , written landowner commitment to next project step, and cost-estimate)
	Project complete	Final Performance Report ³ ; press release

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Stormwater - Final Engineering Design	Project initiated; determination of required permits	Documentation of required permits for project implementation, indicating potential challenges/conflicts for obtaining permit (if applicable) and project locator map
	Determination of O&M responsible party	Documentation of O&M responsible party once project is implemented
	100% design complete ⁴	Final Design Report (includes synthesis of prior completed project deliverables, 100% designs ⁴ , written landowner commitment to implement project, and final cost-estimate)
	Project complete	Final Performance Report ³ ; press release
Stormwater – Implementation	Project initiated; RFP Issued (if applicable)	Copy of RFP (if applicable); photo(s) of site(s) pre-implementation
	Contractor selected (if applicable)	Signed contract; statement of reasoning for contractor selection (if applicable)
	Permit documentation (if applicable)	Required permits secured (if applicable)
	Implementation update(s)	Interim report(s) (includes summary of work to date, percent progress, and construction photos)
	BMP(s) implemented	
	O&M plan created and signed	Signed 10-year minimum O&M plan
	Project complete	Final Performance Report ³ including BMP reporting; press release; post-implementation photo(s)

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Project Type	Milestones	Deliverables
Wetland Restoration - Project Identification	Project initiated; site locations and boundaries identified	Locator map of identified problem area(s) and narrative on how areas were identified
	Restoration needs and objectives identified	Project summaries with restoration needs and objectives identified
	Prioritization criteria developed; project prioritization completed	List of criteria used for prioritization (must include level of landowner commitment); prioritized project list
	Assessment completed	Final Assessment Report (includes synthesis from prior completed project deliverables); batch import file ¹ and locator maps ² of projects identified
	Project complete	Final Performance Report ³ ; press release
Wetland Restoration- Preliminary Engineering Design	Project initiated; ownership of site(s) identified	Locator map with site photo(s); summary of landowner contact
	Identified site/design considerations and permitting needs	Project summaries that identify site/design considerations, permitting needs, and restoration objectives and goals
	30% design complete ⁴	Preliminary Design Final Report (includes synthesis of prior completed project deliverables, 30% designs ⁴ , written landowner commitment to next project step, and cost-estimate)
	Project complete	Final Performance Report ³ ; press release
Wetland Restoration – Final Engineering Design	Project initiated; determination of required permits	Documentation of required permits for project implementation, indicating potential challenges/conflicts for obtaining permit (if applicable) and project locator map
	Determination of O&M responsible party	Documentation of O&M responsible party once project is implemented
	100% design complete ⁴	Final Design Report (includes synthesis of prior completed project deliverables, 100% designs ⁴ , written landowner commitment to implement project, and final cost-estimate)
	Project complete	Final Performance Report ³ ; press release
Wetland Restoration - Implementation	Project initiated; RFP issued (if applicable)	Copy of RFP (if applicable); photo(s) of site(s) pre-implementation
	Contractor selected (if applicable)	Signed contract; statement of reasoning for contractor selection (if applicable)
	Required permits secured (if applicable)	Permit documentation (if applicable)
	Implementation update(s)	Interim report(s) (includes summary of work to date, percent progress, and construction photos)
	BMP(s) implemented	
	O&M plan created and signed	Signed 10-year minimum O&M plan
	Project complete	Final Performance Report ³ ; press release; post-implementation photo(s)

¹ The batch import file (BIF) is a required deliverable for assessment/planning projects resulting in project Identification. All projects involving project identification and prioritization are required to complete a table listing each project identified. The BIF is used to incorporate projects identified and prioritized into Vermont Tactical Basin Plan Implementation Tables.

² Locator maps for projects identified: Grantees/contractors are required to submit locator maps for each project identified under “project identification” projects, such as assessments and planning projects. Locator maps must be created using the ANR Atlas Ecosystem Restoration Grant Screening Layer (<http://anrmaps.vermont.gov/websites/anra5/>) so that potential indicators of natural resource conflicts/permitting needs will appear on the map of the project area. Project locator maps should be downloaded from the Atlas for each project identified and listed in the BIF (described above) and submitted as a PDF. See the Application Manual, Appendix 1, for instructions on how to create project locator maps.

³ Final performance reports are the final deliverable for each Ecosystem Restoration grant/contract agreement (templates provided in Attachment E in all agreements). If a grant agreement involves project implementation, additional reporting at the best management practice (BMP) level may be required. Fillable formats of performance report templates are available at: <http://dec.vermont.gov/watershed/cwi/grants>.

⁴ Ecosystem Restoration Design Terminology and Guidance Document defines design completion levels and expected deliverables and is available at: <http://dec.vermont.gov/sites/dec/files/documents/ERPDesignTerminologyandGuidance.pdf>.